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# Foreign AGRICULTURE

REVIEW OF FOREIGN FARM POLICY, PRODUCTION, AND TRADE

## IN THIS ISSUE

UNITED STATES LEND-LEASE SHIPMENTS AND THE BRITISH FOOD SITUATION

CONTRIBUTIONS OF THE BRITISH DOMINIONS TO THE UNITED NATIONS FOOD  
SUPPLY

BRITISH AGRICULTURAL-PRODUCTION POLICY

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## UNITED STATES LEND-LEASE SHIPMENTS AND THE BRITISH FOOD SITUATION\* . . . . .

*Determination of what should be produced and how it should be utilized to meet wartime food needs is definitely a priority matter that must be measured by the relative need for different products, the relative availability of supplies from all sources, and finally, the relative cost in terms of shipping space that may be required to transport the supplies produced in various parts of the world. Much has been achieved in the stimulation and direction of production in such a way as to provide the largest quantities of calories and the essential proteins, vitamins, and minerals at or near the place where the food is needed. Lend-lease food shipments have been an important factor in the feeding of the British armed forces and in the maintenance of the health and working efficiency of the British civilian population.*

### UNITED NATIONS FOOD POLICY: USE OF FOOD RESOURCES

For the effective prosecution of the war it is deemed necessary that the production and distribution of food be directed as efficiently as possible to the satisfaction of the essential military and civilian needs of the United Nations. This was recognized in the statement issued jointly by the President of the United States and the Prime Minister of Great Britain on June 9, 1942, when they stated that the purpose of creating the Combined Food Board was to "... coordinate further the prosecution of the war effort by obtaining a planned and expeditious utilization of the food resources of the United Nations ...."

The United States plays a vital role in the program for the most effective use of United Nations food resources through the increased production of highly essential foods in concentrated form, the curtailment of domestic food consumption, the shipment of food and agricultural supplies under lend-lease agreements, and in numerous other ways. The shipment of farm machinery on a substantial scale to the United Kingdom and various parts of the British Empire has been an important factor in increasing the production of food where it is most needed and in conserving badly needed shipping space.

It must be kept in mind that Great Britain is the principal military objective of the German high command. It was the plan of Germany in 1914-18 to defeat the Allies by using unrestricted submarine warfare to cut off the overseas food supplies flowing to the United Kingdom. Fortunately, that plan was defeated. Instead, due in no small part to the blockade of Germany and the deterioration of food production and of the food-distribution system within Germany and Austria-Hungary, the collapse of the Central Powers was effected. Again Germany is trying to cut off the flow of food to Britain. Again our victory depends, among other efforts, upon the maintenance of the food supply of the United Kingdom.

\* Prepared by the Office of Foreign Agricultural Relations, with the cooperation of the Office of Lend-Lease Administration and the British Food Mission.

## BRITISH FOOD SITUATION AFTER THE GERMAN OCCUPATION OF WESTERN EUROPE

Food supplies in the United Kingdom fell to their lowest point during the winter of 1940-41, after the successive German occupation of Denmark, Norway, the Netherlands, Belgium, and much of France abruptly cut off important sources of supply of bacon, lard, fish, dairy products, poultry products, and vegetables.

In the winter of 1940-41, before lend-lease shipments had begun and before British agriculture had been stepped up to its present capacity, the English diet deteriorated rapidly. Between December 1940 and April 1941, the meat purchasable per person per week, rationed by retail price, was reduced from 2s. 2d. to 1s. (equivalent to about  $2\frac{1}{4}$  pounds to 1 pound), and the cheese available per week declined to less than 1 ounce. Green vegetables (other than cabbage), fruit, and eggs were almost unobtainable. The average adult male lost several pounds of weight during this period, production of war materials was slowed up, and malnutrition was noticeably increasing. An increase of 15 percent in the production of war materials was possible, according to Ernest Bevin, the Minister of Labor, if an adequate diet were provided British workers. It thus became apparent that provision of additional quantities of protective foods was imperative.

## THE PRESENT BRITISH FOOD SITUATION

In order to save shipping space, there has been an increase in consumption of certain commodities that are largely domestically produced or that can be imported in highly concentrated form and a reduction in consumption of the bulky commodities that the United Kingdom imported in large quantities prior to the war. Thus consumption of certain important domestically produced commodities that can be substituted for imported foods has shown important increases. The consumption of potatoes and vegetables has increased by more than one-fourth, whereas liquid-milk consumption showed an even greater increase.

The consumption of certain commodities for which the United Kingdom must rely largely on imports has declined appreciably. Of this group the consumption of butter and fresh eggs has been reduced by about two-thirds, sugar by about one-third, and meat, including bacon and ham, by about one-fourth. There has been an important increase in the consumption of flour, which has been effected partly by an advance in the extraction rate of flour from wheat, from 73 to 85 percent, and partly by the expansion of domestic production. Imports of wheat have actually shown a small decline.

Though domestic production has increased greatly in the United Kingdom within the last 2 years, the total food supply is yet considerably below the pre-war level. The greatest deficiency is probably in animal proteins; i.e., fresh meat, bacon, ham, fish, and eggs (table 1).

Shortages also still continue in the supply of butter, other fats, and sugar. (See table 2.) Cheese consumption, which declined to less than 1 ounce per person per week in the spring of 1940, has been maintained at a high level during the last year, because it can be shipped economically due to its condensed form, and because it can be used as a substitute for meat.

A number of food commodities which the United States now ships to the United Kingdom are distributed under the Points Scheme that was devised to give the consumer a choice of certain rationed commodities. The number of points needed to obtain a particular commodity is raised or lowered in order to adjust demand to the available supply. At the present time the consumer has 20 points of miscellaneous commodities

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TABLE 1.—Comparison of per capita pre-war and wartime consumption of meats per week in the United Kingdom<sup>1</sup>

| TYPE OF MEAT                            | PRE-WAR CONSUMPTION | NOW AVAILABLE UNDER DIFFERENT RATIONING SCHEMES |
|-----------------------------------------|---------------------|-------------------------------------------------|
|                                         | Ounces per capita   | Ounces per capita                               |
| Bacon .....                             | 8                   | 4                                               |
| Canned meats .....                      | 1                   | 1.50                                            |
| Fresh meats .....                       | 2 31                | 18 (adult)                                      |
| Offals, meat content of sausages, etc.) |                     | 4                                               |
| Consumed in restaurants .....           | —                   | 2                                               |
| Total .....                             | 3 40                | 4 29.50                                         |

<sup>1</sup> Information supplied by the British Food Mission; excludes poultry, rabbits, game, and fish, in which there has been greater reduction than in meats but for which wartime statistics are not available.

<sup>2</sup> Deduction made for larger bones taken from beef in order to make it comparable to wartime purchase under meat ration.

<sup>3</sup> Includes pre-war consumption in restaurants, estimated to have been about 10 percent of the total.

<sup>4</sup> This is about 10 percent lower than the estimates of total meat consumption made on a carcass basis, the differential being in the shrinkage, waste from cutting, etc.

TABLE 2.—Comparison of British pre-war purchases of certain foods as such by households of wage earners with wartime rations allowable for an average family (3.75 persons)<sup>1</sup>

| COMMODITY                            | CONSUMPTION OF AVERAGE FAMILY PER WEEK |          |              |               |
|--------------------------------------|----------------------------------------|----------|--------------|---------------|
|                                      | PRE-WAR <sup>2</sup>                   | MAY 1941 | OCTOBER 1942 | FEBRUARY 1943 |
|                                      | Ounces                                 | Ounces   | Ounces       | Ounces        |
| Butter .....                         | 29                                     | —        | —            | —             |
| Margarine .....                      | 11                                     | —        | —            | —             |
| Lard .....                           | 8                                      | —        | —            | —             |
| Total .....                          | 48                                     | 3 30     | 4 30         | 30            |
| Cheese sold by weight .....          | 11                                     | 3.75     | 5 30         | 6 15          |
| Tea .....                            | 11                                     | 7.50     | 7.50         | 7.50          |
| Sugar .....                          | 77                                     | 30       | 30           | 30            |
| Jam and marmalade <sup>7</sup> ..... | 16                                     | 7.50     | 15           | 15            |

<sup>1</sup> Total consumption is not shown, since it excludes, among other things, home-produced food and meals taken out at restaurants or canteens.

<sup>2</sup> Based on 1937-38 survey by Ministry of Labor, covering 8,905 industrial households; see *Ministry of Labour Gazette*, December, 1940, p. 302; *Wartime Rationing and Consumption*, Economic Intelligence Service, League of Nations, 1942, pp. 41 ff., table III.

<sup>3</sup> Not more than 4 ounces of butter per person per week.

<sup>4</sup> Not more than 2 ounces of butter per person per week.

<sup>5</sup> Maximum allowed; fixed at this level in order to allow substitution of cheese for meats in short supply; average consumption about 5 ounces per person.

<sup>6</sup> As from February 7, 1943; 12 ounces allowable per person in case of special groups; i. e., heavy workers, vegetarians.

<sup>7</sup> Sirup was included with jam and marmalade for rationing purposes until July 1942, when it was placed under the Points Scheme.

not separately rationed for a 4-week period. He may choose as far as his points will go from a large number of commodities. The present point value of certain foods is as follows: One can (1 pound) of luncheon meat (obtained from the United States), 24 points; 1 pound of American pork sausage, 6 points; 1 pound of prunes, 4 points; and 1 pound of rice or dried peas, 4 points.

The sale of canned fruits has been prohibited since September 6, and canned vegetables since November 29, 1942. But information has been received that canned fruits and vegetables will be released at an early date for sale under the Points Scheme. Since November 22, nonpriority customers may receive 2 pints of liquid milk per person per week. The present allotment of fresh eggs for nonpriority customers is 1 per month, and 12 per month for priority customers; i. e., nursing or expectant mothers and certain classes of invalids.



### DESTINATION OF LEND-LEASE SHIPMENTS

In the delivery of articles for export under the Lend-Lease Act of March 11, 1941, emphasis has been placed upon those products that would go furthest in meeting the needs of the military forces and supplying the deficiencies in the civilian diet. Under this policy the United Kingdom receives a larger share of foodstuffs than of other materials shipped under lend-lease.

Of the lend-lease food supplies consigned to the United Kingdom during July-September 1942, two-thirds went directly into consumption. The other one-third, including such articles as starch, lard, and fruit pulp, were absorbed in manufactures. Approximately 83 percent of the lend-lease food supplies shipped to the United Kingdom went to civilians and 17 percent to the military forces.

### EFFECTS OF FOOD SHIPMENTS ON THE BRITISH DIET

Food shipments have been tremendously important to the civilian population of Great Britain and Northern Ireland, as well as to the British military forces. Each adult civilian in the United Kingdom, for example, obtained an average of about three and a third fresh eggs each month during the last fiscal year, and sometimes the fresh eggs obtainable for each person declined to one per month. United States shipments of dried eggs to the United Kingdom, averaging 6,846,584 pounds per month from January through September 1942, make it possible to distribute a package of dried eggs to each person every 3 months during the period of low seasonal production in the United Kingdom. Thus the dried eggs that the individual could purchase was equivalent to about four fresh eggs per month.

The bacon and ham that the United States and Canada are sending make it possible for each adult to have a ration of 4 ounces of bacon or ham weekly, which is an important item in light of the limited supply of fish, poultry, and other sources of proteins and fats. Cheese goes far in making up the deficiency of various types of meat and other protein foods that are essential to heavy workers. Dried fruit, fruit juices, and vitamins are necessary to supplement the diet that contains too many potatoes and too little fresh fruit, poultry products, fish, and meat generally. These articles of food may be considered essential to wartime Britain in the maintenance of war production and the general morale.

### CURTAILMENT WOULD RESULT IN SERIOUS DEFICIENCY IN BRITISH DIET

Any appreciable reduction in lend-lease shipments from the United States against the 1943 program would cause nutritional and supply deficiencies that would need to be remedied. But replacement from other sources with identical or nutritionally alternative foods, in almost all cases, would be impossible from the point of view of supply quite apart from the shipping viewpoint.

A serious shortage of animal protein foods would cause a recurrence of the deficiency which, with other factors, was largely responsible for the serious food situation in the United Kingdom during the first half of 1941. A marked reduction in supplies of cheese, bacon, or dried egg would necessitate a change in the intended rations of these foods. A shortfall in shipments of spray skim-milk powder would prevent an adequate distribution during the period of liquid-milk shortage in the winter of 1943-44 which would probably be more severe than that of the current winter. With the United Kingdom relying on the scheduled lend-lease shipments, the nutritional position of the country would be threatened if deliveries should fall substantially short of the program.



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# RELATION OF LEND-LEASE AID TO UNITED KINGDOM SUPPLY AND CONSUMPTION

The shipments which the United Kingdom needs from the United States in 1943 to maintain the British diet at the level of 1942 represent an important part of the British food supply. After lend-lease shipments of food to all countries, other exports, and its own military requirements have been deducted from the total supply, the United States will have a greater quantity and variety of foodstuffs available for each civilian in the United States than that available for each civilian in the United Kingdom.

The United States civilian consumption in 1942 was considerably higher than in the pre-war period. (See table 3.) The quantity of food which each United States civilian spares for lend-lease shipments becomes much more significant, because of population differential, when distributed in the United Kingdom. United States fruit consumption during 1942 was 3 percent below the pre-war level, but consumption of meat was 15 percent higher; of milk and milk products 8 percent, of eggs 7 percent, and of vegetables 17 percent higher.

The meat that the United States shipped under lend-lease to the United Kingdom in 1942 was the equivalent of 16 pounds for each civilian in the United States. It amounted to 46 pounds on the average for each person - civilian and military - in the United Kingdom. Thus the food that the United States sends to Britain, while a significant part of its own supply, becomes a much more important part of the British diet.

TABLE 3.—United States consumption of foods and lend-lease aid

| FOOD GROUPS                              | 1942 CONSUMPTION PER CAPITA, UNITED STATES |                             | EFFECT OF 1942 LEND-LEASE SHIPMENTS   |                                       |                                     |
|------------------------------------------|--------------------------------------------|-----------------------------|---------------------------------------|---------------------------------------|-------------------------------------|
|                                          | ACTUAL                                     | IN TERMS OF 1935-39 AVERAGE | TOTAL                                 | TO UNITED KINGDOM                     |                                     |
|                                          |                                            |                             | PER CAPITA REDUCTION IN UNITED STATES | PER CAPITA REDUCTION IN UNITED STATES | PER CAPITA INCREASE IN U. K. SUPPLY |
|                                          | <i>Pounds</i>                              | <i>Percent</i>              | <i>Pounds</i>                         | <i>Pounds</i>                         | <i>Pounds</i>                       |
| Meat .....                               | 145                                        | 115                         | 19.0                                  | 16.0                                  | 46                                  |
| Milk and products in terms of milk ..... | 868                                        | 108                         | 33.0                                  | 32.0                                  | 93                                  |
| Eggs .....                               | 40                                         | 107                         | 6.5                                   | 5.2                                   | 15                                  |
| Fruit in terms of fresh .....            | 221                                        | 97                          | 3.3                                   | 3.3                                   | 9                                   |
| Vegetables in terms of fresh .....       | 510                                        | 117                         | 3.0                                   | 3.0                                   | 8                                   |

The main objective of the Lend-Lease Act is to bring about the best possible allocation among the United Nations of available supplies of essential war materials, including food. In this war the United Nations have a common aim - the defeat of Nazism. The attainment of that goal requires that each nation contribute whatever it is best able to supply. By using the domestic-production capacity as efficiently as possible and by consuming at home only that which is essential, the United States strengthens the production and fighting effectiveness of its Allies. By sharing its products in order to help feed and arm its own soldiers and the soldiers of the Allies as well, the United States hastens the day of victory.

## CONTRIBUTIONS OF THE BRITISH DOMINIONS TO THE UNITED NATIONS FOOD SUPPLY . . . . .

By Montell Ogdon and Maurice Wright\*

*The British Dominions were important suppliers of foodstuffs to the United Kingdom prior to the beginning of the war, but they became of even greater importance as other sources of British supply, particularly those of the Continent of Europe, were closed. They have greatly increased production to fulfill the food demands of the United Kingdom and, since Pearl Harbor, those of the United Nations forces in the Pacific area. Various types of measures dealing with the man-power problem, rising prices, and domestic food shortages have been necessary to meet the changing demands resulting from shifting military operations. Faced with certain problems not unlike ours in the United States, the Dominions have adjusted their production and curtailed their own consumption in order to respond to the call of the United Nations for food. Canada has made an outright gift of a billion dollars worth of supplies to the United Kingdom, and Australia and New Zealand, now formally included in the lend-lease framework, are providing United States forces with food, munitions, transportation, and other necessary military equipment and services.*

The Dominions of Canada, Australia, New Zealand, and South Africa are the principal overseas sources of food for the United Kingdom in times of peace and war. In 1938 Australia was the source of 53 percent of the United Kingdom's imports of frozen beef, 28 percent of the frozen mutton and lamb, 19 percent of the butter, 8 percent of the cheese, 31 percent of the wheat, 9 percent of the barley, and 16 percent of the unrefined sugar. New Zealand was the source of 17 percent of the frozen beef, 53 percent of the mutton and lamb, 27 percent of the butter, and 56 percent of the cheese. Canada shipped about 30 percent of the wheat and 25 percent of the barley, cheese, bacon, and ham imported by the United Kingdom. The Union of South Africa, though relatively less important, sent considerable quantities of sugar, dairy products, and fruit.

Prior to the war, the Food (Defence Plans) Department of the United Kingdom Board of Trade entered into discussions with the Dominions, and, as early as 1937, the general principles of a wartime food-purchase plan were agreed upon. Within a few days after the beginning of the war, agreements were announced that concerned the British purchase of the more important food products available in the respective Dominions. The scheme entailed creating Government machinery in the United Kingdom and in the Dominions that enabled the British Ministry of Food - successor to the Food Plans Department - to become the greatest and, almost, the only importer of food. Likewise, the Dominions have each created governmental boards with power to purchase supplies to fill the food contracts with the Ministry of Food. The exigencies of wartime shipping, the growing number of theaters of war, and variations in domestic production and consumption within each of the Dominions have raised a variety of problems that have been met by each Dominion in its own way.

\* Office of Foreign Agricultural Relations.

## CANADA

Canada has been an extremely valuable ally in prosecuting the war on the agricultural front. It has made real sacrifices as a direct result of its food contributions to the war effort. It has not only supplied to Great Britain, and to a lesser extent to other of the United Nations, products of which it has traditionally been a leading producer, but it has also taken steps to increase its production of other products, the usual sources of which have become inaccessible due to wartime conditions. In performing these functions, Canada has met difficulties similar to those which are being encountered in the United States, ranging from the irritations which accompany price control to shortages of labor, foods, and materials.

That the increased supplies are substantial can be seen from the increase in slaughterings at inspected establishments during 1942, as compared with 1939, of about 20 percent for cattle and more than 100 percent for swine. These figures do not take into account the direct deliveries to butchers by farmers, which are known to have increased appreciably in recent months.

The transfer of emphasis from surplus products to essential commodities has resulted in increased production of cheese, vegetables, flax fiber, flaxseed, soybeans, sugar beets, seeds, honey, and other much needed items. The production of flaxseed, for example, has increased from a 1936-40 annual average of 1,784,000 bushels to an estimated production of 14,992,000 bushels in 1942.

Canada early in the war established a credit of one billion dollars available to Great Britain for the purchase of Canadian products for Britain's use in the war effort, and Canadians are restricting their own consumption in order to fill their commitments to the United Kingdom.

## Canadian Deliveries to United Kingdom

Canada contracted to furnish 600,000,000 pounds of bacon during the year which ended September 30, 1942. In order to overcome difficulties that arose in the fulfillment of this commitment, Canadian consumers were requested in September 1942 not to purchase pork, bacon, or ham until November 1. In spite of this fact, Canada has recently undertaken to furnish during the year ending September 30, 1943, 675,000,000 pounds of bacon to Great Britain. This amount represents an increase of more than 300 percent above the quantity of bacon furnished by Canada to Great Britain in 1938 and will require the largest production of hogs in the history of Canada, approximately 7,500,000.

Canada's cheese-marketing agreement for the year ending March 31, 1943, calls for the shipment to the United Kingdom of 125,000,000 pounds of cheese, 13,000,000 more than last year, and approximately 60 percent more than the average annual pre-war shipments.

The tremendous shipments of pork and dairy products to Britain have curtailed the domestic supply of these products, and increased the demand for beef for civilian use. This demand, together with the beef requirements for war purposes, has made the beef shortage particularly acute. The Minister of Agriculture has announced a 2-year program for increasing the meat supply, and he has urged farmers to adopt a short-time plan of feeding marketable cattle through the winter in order to provide an early increase in available beef. Beef-cattle exports by individuals have been prohibited, and this has entailed the sacrifice of profitable export markets in the United States. Other methods of increasing the food supply have been resorted to, such as the program for increasing production in Eastern Canada by providing Government assistance in the



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transportation of feedstuffs and the advancement of \$1,000,000 for the partial payment of fertilizer costs.

Besides supplying Great Britain with many essential foodstuffs, Canada has contributed in other ways to the general war effort of the United Nations. As an example, considerable supplies of Canadian wheat in the form of flour have moved to the Soviet Union in recent months under credit arrangements made by the Canadian Government.

#### Labor- and Price-Control Problems

The shortage of farm labor in Canada has created particular hardships because of the increased emphasis on dairy products and more intensive farming generally. The scarcity of labor and the increased cost of production resulting therefrom may be noted from the fact that the average yearly cash wage for farm labor in Canada increased from \$275 in 1940 to \$353 in 1941.

The agricultural-labor shortage has been met partially by government regulations issued last spring providing for the freezing of agricultural labor on farms, except for seasonal employment in other primary industries. Farm labor was given indefinite postponement from military service at the same time. These measures have been supplemented by longer working hours and contributions of university students, high-school students, and other groups.

Rising prices in Canada created need for ceilings on wages, prices, and service charges, which were put into effect late in 1941. This policy has had a beneficial effect in curbing an inflationary tendency which, if it had been permitted to continue uncontrolled, might have seriously impeded Canada's war effort. It is estimated that the cost-of-living index, which rose 1.2 percent from November 1, 1941, to August 1, 1942, would have risen about 10 percent in the absence of price control.

Price control and shortages have brought rationing, which is essentially parallel to the rationing being carried out in the United States. It applies, in the agricultural field, to butter, coffee, tea, and sugar, whereas meat consumption has been reduced by voluntary consumer action and curtailed deliveries to retailers.

#### AUSTRALIA

The Australian Food Council recently directed attention to the valuable contribution that Australia could make to the cause of the United Nations by: "(1) Continuing to feed all members of the Allied armed forces in the Southwest Pacific war zone; (2) feeding the Australian civilian population to the extent necessary to maintain full health and strength for a total war effort; (3) taking its full share of responsibility for feeding the people of Allied nations outside the Pacific war zone, based on its capacity to produce and process food, and on the shipping that is made available."<sup>1</sup>

Australian farm production has been maintained at high levels in the face of a man-power shortage created by the large demands of the armed services and of a war industry which now employs almost as many workers as were employed by all factories in the immediate pre-war period. British wartime purchases of primary agricultural products from Australia include meat, butter, cheese, eggs, sugar, and canned and dried fruits. Australia has also supplied vegetables, wheat, and flour to the United Kingdom.

<sup>1</sup> AUSTRALIAN FOOD PRODUCTION, The Chamber of Commerce Journal, London. Vol. LXXII, No. 1040, p. 454, November 1942.

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### Effects of Military Demand on Australian Food-Supply Situation

When large forces of American troops were sent to the South Pacific, Australia also undertook to furnish most of their food needs. Because of the emphasis in the American diet upon pork and beef, which, from the standpoint of either production or consumption in Australia, are of minor importance, the supply of these meats rapidly changed from abundance to scarcity, and civilian rationing was instituted to insure the amounts desired by the American forces. During 1942 Australia supplied the American forces, by reciprocal lend-lease, with more than 15,000,000 pounds of beef and veal; 8,000,000 pounds of pork, bacon, and ham; and 3,000,000 pounds of mutton and lamb.<sup>2</sup>

Nor was this all. During all the last half of 1942 potatoes were in short supply, and for a time none were allocated to civilians in order that 20,000,000 pounds might be furnished to the American forces under the reciprocal-aid program. During the past year sales of canned vegetables and fruits to civilians have been halted, and fresh vegetables have become scarce, but 25,000,000 pounds of vegetables - other than potatoes - and fruits have been lend-leased to the United States. In addition Australia has supplied 1,800,000 dozen eggs, almost 4,000,000 pounds of butter, 5,500,000 quarts of milk, and large quantities of other foods.

### Adjustment of Production

Production of pork, beef, and vegetables is being emphasized particularly in order to meet the requirements of the armed forces in Australia and the South Pacific area. Emphasis is also placed on production of dairy products and eggs in order to meet increased domestic needs and to make shipments to the United Kingdom.

An increase in vegetable production has been urged among commercial growers, and the army has also joined the program. Large-scale army market gardens, scientifically planned, have been established and have already produced many tons of vegetables. State Departments of Agriculture have entered into contracts with growers to secure the desired increase in vegetable production.

Though rice production is up to pre-war standards, distribution of civilian supplies has been suspended. Demands of the armed forces have almost doubled, because it has become necessary for the Australian Army to feed tens of thousands of natives in areas that formerly received supplies from territories now held by the Japanese. Beside meeting Australian and New Zealand service demands, Australia is now furnishing rice to the native populations of Fiji, British New Hebrides, and to New Caledonia and other islands of the Pacific belonging to the Fighting French.

Within the past year great strides have been made in the development of food-processing facilities in Australia. Meat is being canned or dehydrated to conserve refrigerated shipping space to the limit of the Commonwealth capacity, and it is aimed to increase severalfold the quantities of canned vegetables.

A step was recently taken to remedy the lack of a coordinated agricultural department in the Commonwealth Government when it was announced that an Agricultural Division would be set up in the Department of Commerce under a Director of Agriculture. This office is intended to meet the needs of a wartime policy and that of the post-war period as well.

### NEW ZEALAND

The position of New Zealand as a preponderantly agricultural country, with over 50 percent of its production accounted for by the pastoral and dairying industries,

<sup>2</sup> REPORT TO THE 78TH CONGRESS ON LEND-LEASE OPERATIONS, from the Passage of the Act, March 11, 1941, to December 31, 1942, p. 52.

has enabled it to assume a position of strategic importance in the supplying of foodstuffs and other agricultural produce for the war effort. Immediately upon the outbreak of war in 1939, New Zealand started to organize itself for expanded production of essential commodities, and once the maximum expansion had been reached, it prepared itself for conversion of its facilities to follow the fluctuating demand dictated by the military situation.

In the 1941-42 season, New Zealand undertook to furnish the British with about double its usual pre-war exports of cheese, but in 1942-43, at the request of the British, cheese production is being lowered, and butter production will be emphasized. Another important development along this same line concerns the perfection of dehydrated-butter production, which is resulting in large savings of shipping space. Large quantities of meat are being furnished the British, also, although wool production has been emphasized in preference to meat due to the shortage of refrigerator space. New Zealand has never been quite self-sufficient in wheat production, but an earnest effort is being made this year to become so, in order that valuable shipping space needed to import wheat can be conserved.

Like Australia, New Zealand provides the food used by American forces in that area. Our men have received, for example, 10,000,000 pounds of beef; nearly 2,000,000 pounds of mutton; 4,000,000 pounds of bacon, ham, and pork; 4,800,000 pounds of potatoes; 1,400,000 dozen eggs; 2,000,000 pounds of butter; and 3,000,000 pounds of sugar from the operation of reciprocal lend-lease in New Zealand.<sup>3</sup>

New Zealand's valuable contribution has been achieved only by strict regulation of its economic life. Price controls, heavy taxation, wage stabilization, and labor regulation are some of the restrictions to which the people have submitted themselves. Drafting of women has been declared essential, and the 54-hour week is general. As in the other Dominions, New Zealand's achievements have not been obtained without serious shortages occurring for the New Zealand consumer. Sugar is rationed, and because of the manpower shortage many domestically produced items of food are scarce. Eggs, in some localities, are limited to three per week. Since New Zealand depended upon imports for many of its manufactured goods, and since its own industries are busy with war production, many other consumer goods are difficult or impossible to obtain.

#### UNION OF SOUTH AFRICA

The agricultural contribution of the Union of South Africa to the war effort has been a vital one, although of a different nature from that of the other Dominions. The Union's economy is primarily based upon mining, so that agriculture is secondary and thus not equipped for expansion in the same way as is, for instance, agriculture in Canada. In addition, natural conditions of climate and soil and dependence upon native labor provide other obstacles that are difficult to overcome.

In spite of these obstacles, the Union of South Africa has rendered signal service in supplying food for troops in Africa and in provisioning the convoys that are continually calling at its ports en route between Allied ports in the North Atlantic and ports in India and Oceania. The feeding of war prisoners and larger-than-normal numbers of Europeans from tropical Africa is another added burden on the Union's food resources. The Union has also supplied Great Britain with the entire exportable part of its wool clip as well as important quantities of eggs, dried fruit, butter, cheese, canned crawfish, jam, fruit pulp, and oranges.

<sup>3</sup> *Ibid.*, p. 53.



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These achievements are not being accomplished without sacrifice on the part of the Union. There have been drastic cuts in the quantities of imported goods upon which it is dependent to a large degree, and the price index of imported goods that are received has gone up 50 percent. Rail travel has been rationed in order to facilitate the transportation of foodstuffs and other vital commodities.

Exchange control was instituted early in the war, and price control for the prevention of inflation and profiteering was put into effect. Increased demand on all sides for food brought about the appointment by the Government of a Controller of Food Supplies, with powers for directing the extensive production program and exercising general control over production, distribution, storage, and sale of foodstuffs in the Union.

### SUMMARY

Like the United States the British Dominions have large areas that produce surplus agricultural commodities. In peacetime the Dominion farmers and stockmen are even more dependent upon a foreign market for this surplus than are American farmers.

The supply and demand factors affecting the exportable surpluses of the Dominions have been complicated by the varying events of war. The first purchase agreements between the United Kingdom and the Dominions took up most of the slack caused by the loss of continental European markets. As the war progressed the shipping situation forced the United Kingdom to shorten its supply routes, and surplus supplies began to accumulate in the Dominions "down under." Then, as Japan entered the war and marched to the back door of these Dominions, Allied forces were rushed to the area, war production was stepped up, and foods became scarce in the civilian markets.

The resulting problems of the Dominions have been similar to those of the United States. Farm workers have been called to arms or have sought more lucrative jobs in war production. Food supplies have been shipped overseas and to the armed forces. Shortages have been common at home.

Because of their reliance upon imports for many types of agricultural supplies and consumer goods, sacrifices on the part of individuals have been greater in the Dominions than in the United States. Importing costs have increased because of shipping conditions, and it has become impossible to obtain many materials formerly imported. Supplies of farm machinery, trucks, fertilizers, equipment needed by clothing manufacturers, and many other articles have all been greatly curtailed.

The farm-labor problem has been somewhat different in each of the respective Dominions, but man-power shortages have become acute in each. Because of the large percentage of the population engaged in agriculture and because of the wartime emphasis upon more intensive agricultural production, such as dairy products and vegetables, the Dominions faced a farm-labor problem 2 years ago not unlike that which now faces the United States. Steps have been taken in each of the Dominions toward the prevention of a further depletion of farm labor. Rationing and price controls have been necessary. Subsidies for food production have been used; higher production goals have been fixed; and farmers, stockmen, farm laborers, and all members of the farm family are working longer hours to meet those goals. The farmers of Canada, of Australia, of New Zealand, and of the Union of South Africa are all working with the American farmer in the production of "food for victory."

## BRITISH AGRICULTURAL-PRODUCTION POLICY . . . . .

By Montell Ogdon\*

*The achievements of British agriculture within the last 3 years have been notable. Between 1918 and 1938 there had been a continuous deterioration in farming conditions, but the makings of a great industry still survived. The British Government, prior to the beginning of the present war, came to recognize the importance of improving agriculture and took certain steps in that direction. With the loss of imported food supplies the responsibility fell upon British agriculture of greatly increasing and adjusting production. Many obstacles to this end have been overcome, and great strides have been made in the use of scientific methods. It is evident that Britain does not intend to neglect agriculture after this war. The Government appears to be encouraging a relationship between agricultural producers and consumers that will be beneficial to both.*

### INTRODUCTION

British agriculture has many wartime achievements to its credit. Much grassland has been plowed up, acreage under crops has been greatly increased, and yields have been maintained above pre-war levels. Milk production has been increased despite a decline of nearly 8,000,000 tons in annual imports of feedstuffs. Production of wheat, potatoes, and sugar beets has been particularly large.

These facts, being widely heralded at home and abroad, have given rise to certain questions among agriculturalists in the United States, each of which has a bearing upon the agricultural programs of the United States and other surplus-producing countries. The most significant of these questions are the following: (1) If British agriculture was in the deplorable state prior to this war that British writers and spokesmen have described, how could this increased production have been attained in so short a time; and, if Britain can achieve such a notable gain in production, why cannot the United States adopt British techniques in order to advance its production? (2) If British agriculture has so greatly increased domestic production, why must so much food be sent to Britain under the lend-lease program? (3) Finally, what will be the effects of such a significant increase in the agricultural production of Britain upon the market for United States agricultural exports and the exports of other surplus countries in the period following the war?

The wartime achievement of British agriculture is the joint product of past developments and current efforts. There are certain historic characteristics peculiar to British agriculture that help to explain the present-day accomplishment and that may also throw some light on the possible post-war trend. To understand the potentialities of British agriculture one must go back two generations to the period of 1840-74, when Britain had reached its peak of efficiency and productivity in mixed farming.

The fertility of the land had been built up by a 4- or 5-year crop-rotation system that included turnips, beans, clover for hay and pasture, and 2 years of small

\* Office of Foreign Agricultural Relations.

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grain, usually wheat. English breeders became known the world over for their purebred livestock, including sheep, hogs, horses, beef cattle, and, later on, dairy cattle. In this period, according to Sir Daniel Hall, no other country could show such yields of wheat and root crops; farmers offered rewards to anyone who could find a weed on their cultivated land; and men came from all over the world to buy British livestock, with which to improve their native herds. Agricultural labor over the years developed skills and techniques in each of the phases of mixed agriculture without which farming would not have reached its high levels of prosperity and proficiency. There was a healthy competition among farm operators in the development of improved agricultural methods that was stimulated by scientific societies, fairs, and other modes of public demonstration.

With the depression in agriculture that followed the Franco-Prussian war, several successive years of bad weather, and the competition of grain production in low-cost producing areas of North America and Australia, the golden age of British agriculture passed away. But adjustments gradually took place. Farmers found it impossible to grow wheat in competition with the new countries and gave more attention to stock-breeding, dairying, and the growing of root crops, fruits, and vegetables. This trend continued until the beginning of the present war.

Though conditions were more prosperous toward the latter years of the nineteenth century, and from 1914 to 1920, certain phases of British agriculture were generally recognized as unsatisfactory, and these received the attention of the Government. The most obvious were the following: (1) The decline in wheat acreage and the increase in grassland; (2) the decline in the numbers of small farmholders; (3) migration of farm laborers, especially the younger ones, to other industries; (4) the deterioration of farm buildings, particularly workers' cottages, and the drainage systems; and (5) inefficiency in the handling, marketing, and distribution of domestically produced agricultural commodities.

By 1914, there was a growing recognition of agricultural problems, and legislation was designed to improve certain conditions. The Development Act, passed in 1909, provided funds for research, investigation, and education; the Small Holdings Act of 1908 enabled small farmers to acquire and equip homesteads; and a large number of proposals for aiding farm labor had been made between 1910 and 1914. Legislation passed during the war, or the years immediately following, with a view toward providing a floor under agricultural wages and prices of farm commodities, proved inadequate to cope with the abnormal conditions of the period and soon became inoperative.

A continuous flow since 1923 of private analyses, public reports, and laws has exhibited a social consciousness of the problems confronting British agriculture and has directed the development culminating in the present wartime program for coordinating the interests of agricultural workers, producers, and consumers.

Reports of the Ministry of Agriculture's committees on the principal agricultural commodities in 1923, and the final report in 1924, pointed out the common interests of producers and consumers and strongly recommended that steps be taken to improve the techniques of distribution. In 1924, the Agricultural Wages Act was passed providing machinery for enforcement of minimum-wage regulations for agricultural workers, and a Grading and Marking Act was passed for improving quality of products. The Agricultural Marketing Act, passed in 1931, provided the basis for a series of schemes that established marketing procedures for all the principal agricultural commodities, and the Agricultural Act, 1937, was designed to increase domestic production and incomes of producers. The Ministry of Health, reporting upon nutritional conditions,



and the Ministry of Labor, upon food costs to the consumer, have provided valuable information for the planning of wartime agriculture to meet the essential needs of the population. The Food (Defence Plans) Department was established in 1936 under the Board of Trade to formulate plans for the distribution of food in the event of war. This Department, which has since become the Ministry of Food, has made use of the far-seeing reports on British food needs and has had an important role in determining wartime agricultural policy.

Despite a continuous reduction in the number of acres under cultivation, a decline in the working population on the farms, and deterioration in the condition of farm cottages and other improvements, when the war came British farms still retained great productive capacity. Land that had been converted from wheat to grassland, when cleared and redrained, could produce large yields of wheat, potatoes, sugar beets, or turnips. The more successful farmers and large numbers of farm workers had not lost the agricultural skill that characterized English agriculture in more prosperous days. They had also developed new skills in the use of fertilizers and new types of farm machinery and in the production of vegetables. Furthermore, the Government was determined that agricultural resources should be developed in the interest of both consumers and producers.

### WARTIME POLICY

#### Program of Expansion and Adjustment to Meet Wartime Needs

In the summer of 1939, the Ministry of Agriculture enlarged the program for increasing production of foodstuffs. The Agricultural Development Act, 1939, provided for the payment of £2 (about \$8) per acre for the plowing up of grassland and subsidized producers of certain agricultural products. With the beginning of the war, a food-production campaign was inaugurated with a view toward utilizing more grassland and encouraging the cultivation of garden plots by householders. Emphasis in the plow-up campaign during the first year of the war was largely upon increased acreage, with each farmer being asked to make a proportionate contribution to the plow-up program.

A more comprehensive agricultural program was announced the autumn of 1940 by the Ministry of Agriculture. The Ministry assured British farmers that they would have a guaranteed market for their farm products as well as a guaranteed price for the duration of the war and for at least one year thereafter. Farmers were advised that they would no longer make proportionate contributions to the plow-up program, but would be called upon to use their land in the best interest of the nation. On the basis of a survey of all agricultural land, made by the Ministry of Agriculture, and the essential food needs, as ascertained by the Ministry of Food, the Ministry of Agriculture is encouraging production of those commodities that will supply the largest amounts of calories, save the greatest amount of shipping space, and also supply essential vitamins, minerals, and proteins.

Milk, because of its nutritional value, takes precedence over every other commodity produced domestically; and wheat, because it yields more calories for the labor required than any other crop and because of its high food value, is placed above all other crops. Production of potatoes and other root crops has been encouraged because of their productivity and because they can be used as fillers to tide over a shortage of other foodstuffs. The allotment of space for family gardens and increased commercial production of vegetables on a large scale have been strongly emphasized by the Ministry of Agriculture in order to supply the green vegetables that would make up for the necessary reduction in vegetable and fruit imports.

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### Increased Efficiency

An effort is being made to increase as much as possible the efficiency of agricultural-production methods. Farmers who have abused their land have been removed from their farms and have had their land taken over by the County War Agricultural Executive Committee. Information concerning scientific farming is again being disseminated, but more systematically than formerly. Scientific methods are tested on different types of land and brought to the notice of leading farmers through special demonstrations. Other farmers are then taken to neighboring farms to learn the new methods being used.

Farm equipment is acquired by and rationed under the direction of the Ministry of Agriculture.<sup>1</sup> Tractors owned by farmers and plowing contractors are supplemented by the operation of tractors belonging to the Ministry of Agriculture under the control of the County Committees. The flow of new tractors is directed by the Ministry as far as possible into the districts that have the greatest need for them. It is then the duty of the County Committees to see that tractors belonging to farmers, plowing contractors, and the Ministry are worked to the fullest extent possible. The tractors under the control of the County Committees are under constant review in order that they may be used where they are most needed.

The Ministry of Agriculture has encouraged the use of fertilizers by loans and subsidies. Loans for the purchase of fertilizers are made to farmers under an Agricultural Requisites Assistance Scheme, and lime is supplied to farmers at half its cost. County Committees ration different types of fertilizers according to the supply and the needs of the various farms. Because potassic fertilizers are in short supply, they are made available for certain crops only and for farms with soils showing a serious potash deficiency. The supply of nitrogenous fertilizers, on the other hand, is large and their use is encouraged. Supplies of phosphates are maintained by the County Committees and made available for all crops. The County Committees may also give permission for the use of phosphates on particular types of grassland when it is deemed essential.

Both large and small farmers are asked by the Ministry of Agriculture to adopt more scientific methods of farming. The pre-war operators of unprofitable livestock farms are admonished to change their practice and to give more attention to productive mixed rotational farming. Grass farmers have been told that they must make up their minds that they have finished, for the time being at least, with the old unprofitable days of grass farming - of farming with a dog and a stick. Small farmers are encouraged to form cooperative groups in order that they may adopt the methods of large-scale farming and make the most of improved methods.

### Overcoming the Labor Problem

The shortage of manpower has been one of the most difficult problems of British agriculture. When skilled agricultural workers joined the armed forces or engaged in war-manufacturing industries in such numbers that the farm-labor supply became seriously threatened, steps were taken by the Government to stop the movement and to fill the gaps with auxiliary labor from various sources.

<sup>1</sup> For analysis of the work of the County Committees and the administration of the control over agricultural machinery, see articles by Mary E. Long, Office of Foreign Agricultural Relations, BRITISH COUNTY WAR AGRICULTURAL COMMITTEES, *Foreign Agriculture*, November, 1942, pp. 374-378; WARTIME DISTRIBUTION OF AGRICULTURAL MACHINERY IN THE UNITED KINGDOM, *Foreign Agriculture*, September, 1942, pp. 326-328.

In order to stop the flow of labor from the farm, wages for farm laborers were increased, after which a provision was made for a national minimum wage for farm laborers and the fixing of the minimum at £3 (\$12.00) per week. This was followed by an order which forbade industrial employers from engaging farmworkers and, moreover, made former agricultural laborers who had accepted industrial employment ineligible for reemployment in industrial occupations. Furloughs have been granted to men in the services in order that they could aid in the planting and gathering of crops, and a plan for deferment of agricultural workers from military service has been adopted.

The Women's Land Army, composed of women who have enlisted for the duration of the war, has become the principal source of auxiliary farm-labor supply. Though the Land Army increased to 50,000 strong in 1942, it was still unable to meet the farm-labor need. The women did yeoman service, but it was found that a good many types of farm work could not be done alone by a woman; and a much larger number of workers was needed during rush seasons. The Women's Emergency Land Corps, university students, school boys and girls, and holiday workers from nonagricultural occupations have also been called upon to assist in farm work.

### WARTIME ACHIEVEMENTS

#### Increased Acreage

The acreage under cultivation in the United Kingdom was increased from 12,957,000 acres in 1938 to 17,506,000 acres in 1942. This was accomplished by one of the most intensive plow-up programs in history. Parks, golf courses, public commons, pasture land, swampland, moors covered with bracken, and marginal land covered with thickets have been taken over for the production of foodstuffs. The Minister of Agriculture continues energetically to push the plow-up program.

Much derelict land has been brought back into cultivation under the supervision of the County War Agricultural Committees, with the Government meeting the entire costs of drainage and clearance. The Government has also encouraged further drainage of fields already under cultivation, if they are improved thereby, by paying a subsidy covering half the cost of the necessary work.

It does not appear that the limit of the plow-up program has yet been reached. The Government has recently called upon the farmers to increase production by another million acres in 1943. There is still much land that can be placed in cultivation by the use of power machinery, but the amount that can be cleared is still dependent upon the supply of labor and machinery.

#### Reduction of Livestock Production

The production of livestock in the United Kingdom, prior to the war, depended to a large extent upon imported feedstuffs. When the war placed a premium on shipping space and made it necessary to curtail radically the importation of feedstuffs, the British Ministries of Food and Agriculture were faced with a choice between increasing the production of feedstuffs within the United Kingdom or reducing the production of livestock. The production of feed for livestock is much less efficient than the production of food for direct human consumption; hence, in order to make best use of the tillable land, it has been deemed necessary greatly to reduce the domestic production of beef, pork, mutton, and poultry.

It would have been possible to divert considerably more acreage from the production of fodder to the production of grains for direct human consumption. This, however,



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would have required either additional imports of meat that were not readily available because of the shipping situation or a further reduction in the meat rations of the United Kingdom, which the Ministry of Food did not deem advisable.

#### Maintenance of Milk Production

Because of the reduction in imports of feedstuffs and the loss of grazing acreage under the plow-up program, it was feared that milk production would suffer a serious decline. Milk production rose, however, in the summer of 1942 above the pre-war level and promises to be about the same in 1943. Feedstuffs are rationed among livestock producers in such a way as to encourage the production of milk and its sale in liquid form. To increase the quantity of feedstuffs for the dairy herds, rations for pigs and poultry have been fixed on the basis of one-third of the numbers in 1939.

The milk supply has been largely diverted to the fluid-milk trade. During the season of heaviest production, however, some of the milk is processed for use of the armed forces and for civilian consumption in periods of low production. It is hoped that the domestic production of milk in 1943 will make possible a continuance of the 1942 distribution of liquid milk and that the imports of dried and condensed milk will largely meet the milk needs of the services and essential-food manufactures.

#### Adjustment of Poultry Production

Shortage of feedstuffs has necessitated repeated reductions in the flocks of those poultry keepers who purchased their poultry feed. Under the orders of the Ministry of Agriculture, announced on June 26, 1942, a domestic poultry keeper, who has more than 12 and less than 50 birds, will be allowed feed rations for one-eighth of the number of birds that he was keeping before the poultry scheme was instituted.

Individual households have, however, been encouraged to keep a few chickens, since by this means considerable quantities of scrap material can be utilized that would otherwise be wasted. The limited quantities of feedstuffs made available to small producers, who must also surrender their rationing privilege for fresh eggs, is more than compensated for by the utilization of potato peelings, damaged vegetable tops, and home-produced feed.

#### Increased Production of Vegetables and Root Crops

Statistics are not available on the total wartime production of green vegetables, but almost all the supply is now being produced domestically, and it is estimated that domestic consumption has increased 30 percent.

Potatoes, sugar beets, turnips, "swedes," and mangolds yield heavily; hence they are important domestic sources of increased food and feed supplies. The yields per acre that may be expected for these crops in the United Kingdom is as follows: Potatoes, 7 to 8 tons; sugar beets, 8 to 10 tons; and turnips, "swedes," and mangolds, 12 to 18 tons. It is estimated that production of potatoes and sugar beets has been increased by slightly more than 80 percent and of turnips and mangolds by about 15 percent.

Potatoes form an important part of the human diet, and considerable quantities are used for feed. The "swedes," mangolds, and the tops and residual fiber of sugar beets are an important source of fodder supply. The sugar obtained from domestic sugar-beet production is used, as far as it goes, to meet the needs for civilian and military rations and food manufactures.

### Phenomenal Wheat Production

Wheat causes the greatest drain on shipping space of any essential food imported into Great Britain. For this reason, and because the British farmers, with the help of modern machinery, could produce more calories of food by raising wheat than in the production of any other commodity, the Ministries of Food and Agriculture have placed more emphasis upon the production of wheat than that of any other crop.

Wheat is regarded as the priority crop, and receives special consideration in the Ministry of Agriculture's scheme for the fixing of fertilizer allowances, in the payment of plow-up subsidies; in the fixing of commodity prices; and in the allocation of farm machinery. An acreage payment of £3 (approximately \$12.00) is made for plowing up land for the cultivation of wheat. For this reason, most of the additional acreage that is plowed up is devoted largely to the growing of wheat. Between 1939 and 1942, the wheat acreage was increased by nearly 50 percent.

Prior to the war the flour supply of Great Britain came largely from imported wheat or imported wheat flour and about two-thirds of the domestically grown wheat was used for animal feed. Since the war, however, the Ministry of Agriculture has succeeded in diverting nearly all the domestic wheat supply to the flour mills. The increased domestic production of wheat and the policy of diverting nearly all of it to human use has resulted in the saving of some 1,000,000 tons of shipping space during the past year.

### MARKETING AND HANDLING OF FOODSTUFFS

#### Full Use of Commodities Produced

The Ministries of Food and of Agriculture are both necessarily interested in prices and marketing processes for agricultural commodities. Because the Ministry of Food is responsible for the acquisition of the food necessary to supply the armed forces and to maintain the health and productive capacity of Britain's civilian population,<sup>2</sup> it is also concerned with the production and marketing of agricultural commodities and the welfare of persons engaged in agricultural production.

The Ministry of Food must be sure that ample supplies of food will be produced, that they will be of the type needed, that they can be distributed at prices within the reach of consumers, and that no obstacles impede the processes of production, marketing, and distribution. The purpose of producing food is that it may be used for human consumption; hence it is the function of the Ministry of Food to see that the proper food is secured and that the best use is made of it.

#### Price-Control Policy

The prices paid to British farmers for their products are designed to encourage production of the commodities needed. On October 9, 1939, the Ministry of Agriculture announced in the House of Commons that the Government would buy the entire quantity of staple crops sold off farms from the 1940 harvest at prices to be fixed in light of prevailing circumstances.<sup>3</sup> Thus prices of products have been revised upward

<sup>2</sup> For analysis of the functions of the Ministry of Food, including rationing and administrative phases of food control in the United Kingdom, see *Foreign Agriculture*, June 1942, pp. 209-226; also *RATIONING OF FOOD IN GREAT BRITAIN*, 14 pp., published by British Information Services, November 1942.

<sup>3</sup> See *BRITISH PRICE POLICY AND PRICE DEVELOPMENTS IN WARTIME*, by Harry L. Franklin, *Foreign Agriculture*, February 1940, pp. 123-130.

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as the cost of production increased, or as it was considered necessary in order to encourage production. Prices have been fixed at levels that would allow profits on less efficient as well as the more efficient farms. This policy is apparently dictated by the desire to encourage production on the poorer farms, as well as the better ones, and by the fact that "the general financial position of agriculture before the war was unprofitable except on the more favored farms."<sup>4</sup>

An interdepartmental committee, known as the Food Price Committee, prepares recommendations with respect to food-price policy. In addition to the Ministries of Food and of Agriculture, the Committee is composed of representatives of other ministries concerned with the food situation, including the Ministry of Health, the War Cabinet Secretariat, the Treasury, and the Prime Minister's Secretariat. There is also a subcommittee of the Food Price Committee, called the Agricultural Price Committee. The committees and departments concerned with food prices at different stages appear to be guided by the following criteria: (a) Prices to producers that will encourage necessary production; (b) the purchasing capacity of consumer groups; and (c) reasonable costs incurred at different stages of production, processing, and distribution.

The Ministry of Food, which is now sole importer of all foods and which also purchases or controls the purchase of the domestic production of most basic commodities, sells certain essential food products at prices below the cost of production and distribution or pays a subsidy at some point in the production or distribution process in order that persons producing or handling the food may receive just compensation and, at the same time, retail prices may be kept within the range of all classes of consumers.

Control has been extended in the United Kingdom from time to time until it now includes practically all food prices at the time of sale by the producer or importer and at various subsequent stages. The extent of this control varies from commodity to commodity, depending upon the nature of the marketing and distribution of the product. When the Ministry acquires title to a commodity at the first stage, the Ministry's selling price becomes the basis for the price at subsequent stages, and the problem of price control is somewhat simplified. A flexible price structure is maintained by the Government. Changes are made in the price paid to the producers because of increases in the cost of production, without any change in the maximum margins; or changes may be made in the margins without any change being made in the base price. Only in the case of milk, vitamins, and concentrated fruit juices has the control been used for relief distribution. The National Milk Scheme provides free milk to needy persons who are unable to pay for it and sells the milk at half price through regular delivery channels to expectant mothers, children, and invalids.

#### More Efficient Methods of Handling

Developments are taking place in the methods of handling of food products in the United Kingdom that reduce wastage, save labor and transportation, and help to make supplies more readily available to consumers. Through the collaboration of the Ministries of Food, Agriculture, and Health, marked progress has been made during the war in the pasteurization of milk. It is estimated that some 70 percent of the milk supply is now being pasteurized prior to its distribution to consumers. Progress has also been made in the elimination of overlapping delivery services.

<sup>4</sup> [Great Britain, Parliament, House of Commons] Select Committee on National Expenditure, SIXTH REPORT, Session 1940-1941, p. 12, London.



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A Government White Paper, dated May 26, 1942, outlined a program for the rationalization of the dairy industry, beginning October 1, 1942.<sup>5</sup> Under this program the Milk Board became the sole purchaser of milk from the producers, and the Ministry of Food purchases all milk from the Board for allocation to distributors and manufacturers. The producer delivers his milk to pasteurizing and bottling plants, which function as collecting and distributing agents under the direction of the Ministry of Food. The price paid by the Ministry of Food varies according to the quality of the milk. All milk will eventually be tested, and that not measuring up to certain minimum standards will be rejected. Dairy men in cities of more than 10,000 population have entered into associations in order to obtain the most efficient use of their equipment.

Prior to the war there were some 16,000 slaughterhouses in England and Wales, and the retailer purchased his meat from any convenient wholesaler, market, or farmer. The livestock was often slaughtered by the retail butcher in his own slaughterhouse or in the public abattoir. Under wartime regulations 750 slaughterhouses were retained in operation by the Ministry of Food. The farmer now sells his livestock to the Ministry of Food at designated slaughterhouses, or packing houses, licensed by the Government. The meat is then sold to the Wholesale Meat Supply Associations, which are organizations of wholesale meat dealers that operate under the Ministry of Food.

Important developments have also taken place in the processing and handling of vegetables and fruit. It is estimated that 700,000 tons of raw potatoes can be dehydrated annually in the United Kingdom in existing plants and those now being erected, for which the United States has furnished some of the equipment. The surplus potatoes thus dried are used in various manufactured foods and as animal feedstuff. Potatoes, carrots, cabbage, and other vegetables are also being dried for shipment abroad to the armed forces.

As much as possible of the plum, blackberry, and other soft-fruit crops is being taken up by the Government for conversion into jam or other canned products. In normal times thousands of tons of plums were wasted if the crop happened to be heavy. This year the Ministry of Food established 14 pulping stations in addition to the pulping facilities of the private canning firms. The pulping stations hold the pulp in barrels until the jam makers can use it; thus it was possible to utilize the entire 1942 plum crop of 120,000 tons. The Ministries of Food and of Agriculture have also worked closely with private organizations in the development of cooperative canning centers, where fruit that otherwise would be wasted is used.

### CONCLUSION

The phenomenal success of the British wartime agricultural program must be attributed to several factors. The British Government planned and developed a purposeful food policy that called for the performance of a huge and strategically important task by the Ministry of Agriculture. By setting up an effective local organization of County War Agricultural Committees, by much cooperation with other departments, by working closely with farmers and all groups or organizations that might help to put over the production program, and by strongly appealing to the traditional character and vitality of British agriculture, the Ministry has performed its task exceedingly well. There is still room for improvement as there is and always will be in any system of production. But the Ministry of Agriculture continues vigorously to seek increased production and improvements in production methods.

<sup>5</sup> MEMORANDUM ON MILK POLICY, C.m.d. 6362, 1942. London [British Government].

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The great increase in production has resulted in part from other factors. The plowable pastures furnished a large reserve of land for increasing the acreage under crops, and that land was also capable of producing much larger yields than, for example, would be the grazing lands that might be plowed up in the western part of the United States. The large amount of farm machinery that was imported into the United Kingdom during 1940-42, contributed to the success of the drainage, clearance, and plow-up programs. The wide use of various types of fertilizers helped to increase yields. Finally, the Government's wartime price and labor policies and the service of all classes of persons participating in the work on the land have contributed to the increase in production.

Larger outturns of wheat, potatoes, and other root crops have been at the expense of the livestock industry. Though the British are able to supply their wartime needs in potatoes and green vegetables and to make large savings in shipping space formerly devoted to the importation of wheat, Britain still has deficiencies in meats, fats and oils, cheese, eggs, and other products that must be met by imports.

Some of the wartime projects, such as household gardens and cooperative canning of fresh fruits, may be expected to decline after the war. Livestock and poultry numbers may be expected to increase, regardless of Government policy, and much of the land diverted to production of wheat or potatoes may be converted to other crops or revert to pasture. The accomplishments in efficiency of production, marketing, and distribution may go far in restoring confidence and security to British agriculture. If the British nutritional standard is maintained after the war at the high level envisaged and if the production efficiency of milk, vegetables, or other products can be maintained on a level with competitive production abroad, British consumers and producers of agricultural products, as well as foreign suppliers of British imports and British producers of goods for export, would stand to gain.

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## NEW BULLETINS

This new series of bulletins resumes a plan that was undertaken several years ago, whereby specialists prepare surveys of the agriculture of particular countries essential to a clear understanding of the present world agricultural situation.

**THE AGRICULTURE OF COLOMBIA.** By Kathryn H. Wylie. Foreign Agriculture Bulletin No. 1

The present world-wide war has made the people of the Western Hemisphere acutely aware of the need for closer inter-American cooperation, economically as well as politically. Agriculture must play an important part in such economic collaboration because some of the greatest deficiencies of the United States are agricultural and the economies of most of its neighbors are largely agricultural. Colombia's aid to economic solidarity in the Western Hemisphere rests largely upon its agricultural possibilities. Although almost any crop can be grown within its borders, its tropical and semitropical products far surpass its Temperate Zone crops in commercial value.

This report contains general information on the soil, mineral, forest, and human resources of the country as background material for the study of the history and development of agriculture, production practices and policies, and the structure and present status of the agricultural industry. Coffee occupies the place of first importance in the economy of Colombia. It usually represents more than half the total value of

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all exports. Bananas were formerly the second most important agricultural export. The description of these industries includes a statement on methods of production and marketing, government and private aid, and foreign trade.

Discussion of staple food and fiber crops produced for domestic consumption includes corn, wheat, rice, sugar, beans, oil and fats, cotton, and fiqué. Domestic production of corn and beans is sufficient for local needs, but it is necessary to import wheat, rice, sugar, and cotton. Imported vegetable oils, particularly coconut oil, account for about 70 percent of total requirements. Production of tobacco is almost sufficient to supply raw material for one of the valuable domestic industries and cattle raising is important in many states. The United States is the principal supplier of Colombian imports and the most important market for its exports.

#### THE AGRICULTURE OF CUBA. By P. G. Minneman. Foreign Agriculture Bulletin No. 2

The economic tie between Cuba and the United States has always been a close one. Under present war conditions, because of the strategic significance of its geographic position, Cuba's welfare assumes new importance in the United States. Cuba, on the other hand, is largely dependent upon the latter as a market for its export crops, particularly cane sugar, the dominant commodity in the Cuban economy. During recent years the island has sent more than three-fourths of its total exports to the United States and obtained more than two-thirds of its import requirements from this country.

Agriculture is the basic industry of Cuba. It gives employment to about half the working population and accounts for over 90 percent of the island's export trade. Crops fall into two general classes, those primarily for export and food crops for domestic consumption. The most important of the former, based on their export value, are sugar, sugar byproducts, tobacco, tropical fruits, winter vegetables, henequen, and coffee. Crops for home utilization are corn, beans, sweetpotatoes, potatoes, yams, yuca, malanga, rice, and bananas. Livestock is of minor importance in general farming; cattle raising is largely confined to the large ranches in east-central Cuba.

This study of Cuba's agriculture, after a brief description of the people, the natural resources of the island, and the economic background of the agricultural industry, contains a survey of each of the principal export crops. Methods of cultivation, volume of production, marketing practices, domestic consumption, trade, returns to farmers, and Government activity are discussed in detail. A few of the crops produced primarily for domestic consumption and livestock production are then considered. A section on foreign trade points out the island's dependence on agricultural exports, the part played by the United States in such trade, and the effects of the present war on it. Finally, Cuba's agricultural self-sufficiency is evaluated, legislative measures affecting agriculture are cited, and future developments are suggested.

It was prepared by Mr. Minneman while on detail to the Department of Agriculture. He was a member of a commission which early in 1941, at the request of the Cuban Government, studied possibilities for diversifying Cuban agriculture and is now agricultural attaché at the American Embassy in Habana.

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A limited number of copies of these bulletins are available for distribution by the Office of Foreign Agricultural Relations to government officials on request. Copies are for sale by the Superintendent of Documents, Washington, D. C., for 20 cents each, to private individuals.